INDIANA STATE TEACHERS' RETIREMENT FUND

Audit of the
June 30, 2003 Actuarial Valuation

Submitted by:
THE SEGAL GROUP, INC.,
THE PARENT OF THE SEGAL COMPANY

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A **limited scope audit** (actuarial review) of any system is intended to provide an assurance that the liabilities and costs of the Fund are reasonable. The review is not a full replication of the actuarial valuation results, but is a review of the key components in the valuation process that encompass the derivation of the liabilities and costs for the Fund. These key components are the data, the benefits valued, the actuarial assumptions used in the funding, and the asset valuation method employed. The receipt of valuation output for a select group of test lives that provides the detail necessary to validate each of these key components.

We reviewed all information supplied to us. We also requested and reviewed additional information provided by the retained actuary. Finally, we considered the reasonableness of the actuarial assumptions and methods in the context of the recently completed experience study, our own experience, and those of other statewide teachers systems. Actuarial assumptions and methods for 26 State teacher systems (the peer group) were reviewed. When referencing industry norms, we are referring to both the norm in the peer group as well as our own experience with similar plans.

The enhancements we recommend are:

- Tighten the data reconciliation process;
- Remove old data records on the TRF files submitted to GRS;
- Verify, using current data, the reasonableness of the 2% load for unused sick leave;
- Make modest corrections to the plan provisions and assumptions summarized in the actuarial valuation report;
- Review process for GASB (Government Accounting Standards Board) compliance for CAFR (Comprehensive Annual Financial Report);
- Add gain/loss by source to the actuarial valuation report; and
- An ad-hoc COLA (Cost of Living Adjustment) review.

The valuation data used by the retained actuary appears both accurate and complete when compared to the Fund records. The peer group analysis suggests that the stated assumptions and methods be within peer group norms. We also verified that certain aspects of a select group of sample test life calculations are reasonable.

With respect to the other aspects of this limited scope actuarial audit, we found the following:

- Benefits projected in the sample test life group match stated plan provisions in the actuarial valuation report;
- Actuarial assumptions are within industry norms and consistent with TRF's experience; and
- Funding and asset valuation methods are consistent with those employed in the public sector peer group.

Conclusion

This actuarial valuation audit validates that the methods and assumptions employed are within the norms. We were able to match all test life results with a very high degree of accuracy. While we found some anomalies in the calculations, as disclosed in this audit report, they are minor or negligible in their impact on the Fund.

Such favorable audit findings, however, do not mean the plan is free from risk. The Funded Ratio for TRF as of June 30, 2003 was 43% for the Closed Plan and 59% for the New Plan, which is lower than the average of 87% for the peer group.

The Closed Plan is funded on a pay-as-you-go basis, making that portion of the plan subject to increasing contribution rates (and perhaps a risk to the benefits). Further, as highlighted in the valuation report, suspending the contributions to PSF creates an "additional burdening on future generations of taxpayers". This audit does not contradict that statement. To the extent employer contributions are below the recommended amount, a decrease in funded status could occur.

TRF provides an ad-hoc COLA to its members. Funding for these benefits are also on an ad-hoc basis. Any benefit that is not actuarially (advance) funded falls into a certain risk. If TRF would like to provide more security in meeting its future benefit obligations, then we recommend the development of a long-term strategy to pre-fund the COLA.

The current amortization method will not be GASB compliant beginning with the June 30, 2006 actuarial valuation. Thus, we recommend changing the amortization period to 30 years.

This audit validates the findings of the 2003 actuarial valuation and also supports the funding concerns raised in that valuation.

PURPOSE, SCOPE AND METHODOLOGY OF THE AUDIT

Purpose of the Audit

The Indiana Teachers' Retirement Fund (TRF) retained consulting services to determine whether the actuarial procedures and methods used by TRF and the retained actuary are valid and appropriate to properly value the Fund's retirement benefits. The TRF requested a review of the reasonableness of the consulting actuary's conclusions and the conformance of their work with generally accepted actuarial standards and practices. Finally, the TRF asked for recommendations of how the Fund can improve procedures for estimating the required level of funding.

Scope of the Audit

This actuarial audit has a specified, limited scope in its review. A full scope audit would include performing the 2003 actuarial valuation from start to finish; in essence, a parallel valuation. This limited scope audit reviews the valuation already performed, through reviewing the benefits, assumptions and methods, without a full replication of the actuarial valuation results. This review is conducted through analyzing detailed output of certain select test lives from the membership group.

In not performing a full parallel valuation, the following implicit assumptions are made:

- The valuation system is accurately applying each assumption as stated;
- The valuation system is properly allocating the present value of benefits between normal cost and actuarial accrued liability; and
- The valuation system is "adding" together liabilities appropriately for each decrement, for each member, and over the entire population (meaning no segment is being "dropped off" and no particular liabilities are being omitted).

What a limited scope audit can provide is:

- Assurance that appropriate benefits are being valued;
- Confirmation that the valuation system is accurately applying assumptions to the test lives;
- A measurement of actuarial assumptions against a peer group and hence an assessment of their reasonableness;
- Confirmation that the program is valuing benefits as stated in the valuation report;
- A review of the reasonableness of actuarial funding and asset valuation methods; and
- An understanding as to whether there are any indications that the liabilities and contribution rates shown are not reasonable or are incorrectly calculated.

The purpose of this audit is to express an opinion regarding the reasonableness or accuracy of the actuarial assumptions, methods, valuation results, and contribution rates. The limited-scope review is not the same as an actuarial valuation, but represents a "second opinion" of the findings and processes included in the valuation.

Methodology of the Audit for the 2003 Actuarial Valuation

The overall objective of the valuation audit is to ascertain whether, on a long-term basis, the benefit promises can be supported by the existing assets and anticipated contributions to the Fund.

The measurement of the reasonableness of the funding levels encompass three key analyses:

- A verification of the benefits being projected for future payment;
- A verification of the appropriateness of the actuarial assumptions that are used in calculating the liability; and
- A verification of the appropriateness of the funding and asset valuation methods.

Benefits Analysis

Critical to projecting accurate benefits is receiving complete and accurate data. We reviewed the process by which data is prepared for the actuarial valuation, including:

- An assessment of the completeness of the data, and
- A review of the data screening process employed.

We confirmed benefit calculations and projections through the test life review. We also tested the benefits side of the accrued liability by confirming the valuation projects benefits consistent with governing provisions.

Assumptions Analysis

The second critical component in assessing the reasonableness of the funding levels is in the selection and the application of the actuarial assumptions. With respect to the selection of assumptions, we;

- Benchmarked the assumptions against a survey of state employee retirement systems for teachers, and
- Examined individual test life calculations.

Methods Analysis

The third component in assessing funding levels is the selection and application of the actuarial cost method (including the method for amortizing the unfunded actuarial accrued liability) and the asset valuation method (including smoothing techniques). We:

- Compared the methods against those used in the survey of state employee retirement systems for teachers, and

- Provided an assessment of the appropriateness for the Fund.

VALIDATION OF BENEFITS VALUED

Data Used in the Valuation

The TRF supplies the participant data to a third party administrator, Covansys, who then provides the data to the retained actuary. We obtained data from the TRF and compared the counts of members to the counts used by the actuary. The counts for the active and inactive members matched, but the counts for the retired members and beneficiaries were 33 records lower in the GRS data files. GRS explained that these records are due to the timing of data entry, and were not provided on the data they received from Covansys. With more than 36,000 members in this group, 33 records represents less than 0.1% of the total and is therefore an insignificant number of records to be concerned with.

The retained actuary does not reconcile participant status codes from the beginning of the year to the end of the year. This means GRS is presuming that Covansys is supplying complete data – *e.g.* members are not being dropped off or added into the system. Covansys makes assumptions to the data they receive from TRF, regarding the grouping of records. This is the first year that Covansys processed the data from TRF for GRS, so all related processes were new for the June 30, 2003 valuation. Therefore, more discussions took place this year with TRF, Covansys and GRS on the source data. GRS sent data questions to Covansys and TRF, which were answered by Covansys and returned to GRS. We understand that the data and reconciliation process will improve over the next several years, and advise Covansys to meet with GRS to better understand the data process.

We discussed the reconciliation employed by GRS on the actuarial data. GRS confirmed all headcounts with TRF based on the New and Closed plan reconciliation from 2002 to 2003. Any status changes questioned by GRS were confirmed with Covansys. GRS provided TRF with an analysis of the data between the 2002 and 2003 valuation years.

Defective records from the source data were dropped during the programming process at GRS. If incomplete or unreasonable data was provided, then GRS would drop these records in their programs. If 5% or more of the data were defective, then GRS would send the data back to TRF to investigate. Old records remain on the data from TRF, which are dropped as defective records in the GRS programs. To the extent that records are dropped, or later added, liabilities and contribution rates could similarly fluctuate. Although the current levels are insignificant, a more comprehensive reconciliation process would avoid these changes in liabilities.

Data Risk Element

Continuing to keep old records (records for former members who no longer are due plan benefits) on the data files submitted to the actuary increases the possibility of error during the reconciliation process. Also, more time is required by the actuary to "scrub" the data and prepare it for the actuarial valuation. Thus, we recommend that TRF contact GRS to determine which old records on the data files should be removed during the data processing, to eliminate unnecessary data work.

In testing the data between TRF and GRS, the match would indicate the actuary is projecting liabilities and costs on TRF's set of complete data. The relatively few changes of the key components of service and compensation further illustrate how the liabilities and costs tie directly to the information in the TRF.

Projected Benefits in the Valuation

Benefits are projected for each potential benefit payable from TRF. We tested the normal retirement, early retirement, withdrawal, death and disability benefits and found them to match the provisions as stated in the actuarial valuation report.

We reviewed the detailed calculations for a selected group of test lives to determine whether GRS correctly projected plan benefits and whether the costs and liabilities were determined in accordance with the actuary's stated methods and assumptions. We requested specific test lives in order to compare the benefit amounts projected in the valuation against our understanding of TRF's benefits summarized in the Active Member's Handbook dated March 2004.

The benefit formula for retirement is reflected correctly in the actuarial valuation report. Service is appropriately projected to retirement, as is compensation. GRS receives the current year of salary in the data provided by Covansys, then projects it in the past as well as the future to determine Final Average Salary.

The following is a list of suggested changes/corrections to the actuarial valuation report:

- ***We compared the death benefits summarized in the GRS report to the Active Member Handbook dated March 2004, and found that GRS only valued the benefits for Teacher-members with at least 15 years of creditable service at the time of death. GRS confirmed that they are not supplied with separate data fields distinguishing Legislator-members, so these death benefits are not valued.***

- ***The Death Before Retirement Benefits are for "in-service" (active) members only, which was confirmed by GRS and should be clarified in the actuarial valuation report.***

- ***The actuarial valuation report should display the male withdrawal rates with an 80% reduction, which matches the rates shown in the Experience Study for July 1, 1997 through June 30, 2002.***

- ***The spouse age assumption that males are three years older than females should be stated in the actuarial valuation report.***

- ***The calculation of the Joint and Survivor Factors for Death Benefits should be stated in the actuarial valuation report, using the unisex blend of the valuation mortality assumptions, and the spouse is the same age as the member. This assumption is inconsistent with the spouse age assumption noted above.***

- ***The "Other" category under Miscellaneous and Technical Assumptions should be corrected to state that only the withdrawal decrement operates during the first 10 years of service.***

The test life comparison exhibit on the next page summarizes the calculations performed by Segal and GRS, and shows the differences by each decrement in the present value of benefits calculation.

INDIANA TEACHERS' RETIREMENT FUND

JUNE 30, 2003 VALUATION

TEST LIFE COMPARISON

	Active (Age 25)		Active (Age 25 - 35)		Active (Age 35)		Rehired Retiree	
ACTIVES:	**GRS**	**Segal**	**GRS**	**Segal**	**GRS**	**Segal**	**GRS**	**Segal**
Present Value of Benefits								
CURRENT AGE:								
Death	$16,083	$16,139	$37,707	$37,707	$27,731	$27,740		
Disability	27	27	48	48	41	40		
Withdrawal	17,748	17,789	6,521	6,536	3,544	3,552		
Retirement	223,622	224,394	382,170	383,511	356,320	357,591	$2,439	$2,450
Total PVB (Current Age)	**$257,480**	**$258,349**	**$426,446**	**$427,802**	**$387,636**	**$388,923**	**$2,439**	**$2,450**
ENTRY AGE:								
Death	$9,725	$9,727	$18,958	$18,958	$6,070	$6,072		
Disability	16	16	24	24	9	9		
Withdrawal	10,722	10,747	3,278	3,286	776	777		
Retirement	135,217	135,680	192,138	192,822	77,990	78,268	$1,226	$1,232
Total PVB (Entry Age)	**$155,680**	**$156,170**	**$214,398**	**$215,090**	**$84,845**	**$85,126**	**$1,226**	**$1,232**
RATIO OF SEGAL/GRS								
Present Value of Benefits:								
CURRENT AGE:								
Death		100.35%		100.00%		100.03%		
Disability		100.00%		100.00%		97.56%		
Withdrawal		100.23%		100.23%		100.23%		
Retirement		100.35%		100.35%		100.36%		100.45%
Total PVB (Current Age)		**100.34%**		**100.32%**		**100.33%**		**100.45%**
ENTRY AGE:								
Death		100.02%		100.00%		100.03%		
Disability		100.00%		100.00%		100.00%		
Withdrawal		100.23%		100.24%		100.13%		
Retirement		100.34%		100.36%		100.36%		100.49%
Total PVB (Entry Age)		**100.31%**		**100.32%**		**100.33%**		**100.49%**

	Deferred Vested < 15 yrs service		Deferred Vested > 15 yrs service		Retiree 1		Retiree 2	
Inactives	**GRS**	**Segal**	**GRS**	**Segal**	**GRS**	**Segal**	**GRS**	**Segal**
Total PVB	**$15,293**	**$15,350**	**$62,848**	**$63,088**	**$33,491**	**$33,403**	**$48,412**	**$48,734**
RATIO OF SEGAL/GRS								
Total PVB		**100.37%**		**100.38%**		**99.74%**		**100.67%**

	Retiree 3		Retiree 4		Retiree 5		Retiree 6	
Inactives	**GRS**	**Segal**	**GRS**	**Segal**	**GRS**	**Segal**	**GRS**	**Segal**
Total PVB	**$26,829**	**$26,583**	**$125,919**	**$126,165**	**$69,932**	**$70,011**	**$44,722**	**$45,036**
RATIO OF SEGAL/GRS								
Total PVB		**99.08%**		**100.20%**		**100.11%**		**100.70%**

	Retiree 7		Retiree 8	
Inactives	**GRS**	**Segal**	**GRS**	**Segal**
Total PVB	**$303,980**	**$305,706**	**$157,217**	**$157,762**
RATIO OF SEGAL/GRS				
Total PVB		**100.57%**		**100.35%**

VALIDATION OF ACTUARIAL ASSUMPTIONS EMPLOYED

As part of our review of the actuarial assumptions, we compared the current set of assumptions to those used by a peer group of 26 state systems covering Teachers.

Investment Return:	The Fund's 7.50% assumption (net after administration expenses) is at the low end of the norm of 8.09% for the peer group.
Wage Inflation:	The 4.50% wage inflation assumption is above the norm of 4.02% for the peer group.
Economic Spread:	The 3.00% economic spread assumption is below the norm of 4.04% for the peer group.
Mortality:	Members are valued based on the 1983 Group Annuity Male Mortality Table, set back five years for males and seven year for females. These rates are consistent with the findings of the experience study for July 1, 1997 through June 30, 2002.
Marriage:	The valuation assumes all active members are married, and males are assumed to be three years older than females.

The Fund's actuarial assumptions, when compared to the peer group, are conservative. Specifically, the investment return assumption is at the lower end of the norm, the wage inflation is above the norm, and the assumption that all members are married is conservative.

An additional assumption includes the value of unused sick leave in the calculation of Average Annual Compensation. Based on the results of the experience study, a 2.0% load is added to the normal, early retirement and deferred vested liabilities, as well as the normal cost, to fund for this feature. This assumption helps to insure the plan will not incur year-by-year losses, as unused sick leave is included in the final calculation of benefits. We agree with the recommendation that GRS stated on page A-2 of the June 30, 2003 actuarial valuation report, that data should be collected from TRF to verify the reasonableness of the 2% load for unused sick leave.

The economic and demographic actuarial assumptions adopted by the Fund are reasonable and consistent with generally accepted actuarial standards and practices contained in Actuarial Standard of Practice No. 27 covering economic assumptions and Actuarial Standard of Practice No. 35 covering demographic and non-economic assumptions.

SURVEY OF PUBLIC EMPLOYEE STATE TEACHER'S RETIREMENT SYSTEMS

Averages of Certain Funding and Contribution Statistics

26 Total Plans in Survey

Item	Average Value	Indiana TRF
Investment return assumption *net after administrative expenses	8.09%	7.50%*
Wage inflation assumption	4.02%	4.50%
Economic spread	4.04%	3.00%
Funding method	65% use entry age normal (EAN)	EAN

VALIDATION OF FUNDING AND ASSET VALUATION METHODS

Funding Method for Liabilities

The entry-age normal method is being used in this valuation. This is a common and appropriate method for this type of plan. In the peer group of 26 state systems covering Teachers there were 18 systems, or 65%, that used entry-age normal. The entry-age normal funding method is somewhat conservative and provides for a stable annual cost (as a percentage of payroll) throughout a participant's working career.

We spot-checked the liability calculation for three active members, a rehired retiree, two deferred vested participants and eight retirees to verify projected annual benefits. We did not run a "parallel" valuation, which is beyond the scope of this audit.

Asset Valuation Method

An actuarial asset valuation method is commonly used to smooth year-to-year fluctuations in the market value of assets, which helps stabilize the calculated contribution rate from year to year. The current method employed by the Fund in determining the actuarial value of assets is one that recognizes market gain and loss fluctuations over a four-year period.

It is common to have gains and losses smoothed over a period of three to five years. Just as is done here, many Funds first calculate the assumed return based on the actuarial valuation interest rate (7.50% in TRF's case) and then smooth any returns that differ from the assumed rate. Thus, if the fund earns the assumed rate, no smoothing is needed. As of June 30, 2003, the smoothed value is 106% of the market value – a ratio well within the norm.

Amortization of the Unfunded Accrued Liability (UAL)

The overriding question for the Indiana Teachers' Retirement Fund is "how adequate are the contribution rates for funding the promised benefits?" Since both benefits and contribution rates are established by state statute, one measure of the adequacy is in the period required to pay off the unfunded accrued liability of the plan. GASB sets forth recommendations that the maximum acceptable amortization period should not exceed 40 years (30 years for actuarial valuations beginning June 15, 2006).

As of the June 30, 2003 actuarial valuation, the period required to pay the unfunded accrued liability is 36 years. This period for amortization is GASB compliant as of the June 30, 2003 valuation date. However, for valuation years on or after June 15, 2006, the maximum amortization period defined under GASB is 30 years. We recognize that GRS has informed the TRF Board and staff that the amortization period should be lowered to no more than 30 years in conjunction with tightening GASB standards. We also recommend an amortization method using no more than a 30-year amortization period to be GASB compliant.

The Funded Ratio for TRF as of June 30, 2003 was 43% for the Closed Plan and 59% for the New Plan, which is lower than the average of 87% for the peer group.

Results of Contribution Rates

The valuation report summarizes results for both the Closed and New Plans. We confirmed with GRS that the benefits for these plans are identical, but just funded separately. The Closed Plan is funded on a pay-as-you-go basis for members hired prior to July 1, 1995 who are obligations of the state. The New Plan is pre-funded for members hired on or after July 1, 1995 (or hires prior to July 1, 1995, who served in a position covered by ISTRF and subsequent to June 30, 1995, were either hired by another school corporation or institution covered by ISTRF, or were rehired by a covered prior employer) who are covered by the local school districts. GRS confirmed that they received the group splits in data provided by Covansys, and the questions concerning 1,202 Closed Plan members hired after July 1, 1995 were substantiated by Covansys as Federally funded employees, since the local districts were not required to make a contribution on their behalf.

The Pension Stabilization Fund (PSF) was originally established to partially pre-fund the liabilities, and avoid the peak of the contributions and benefits, for the Closed Plan members. In prior years it was designed to have contributions made into the Fund, but no disbursements to be paid out. However, currently the contributions to the PSF have been suspended, and PSF funds will be used to pay for pensions due to the Closed Plan members.

The normal cost rate decreased significantly from the June 30, 2002 to the June 30, 2003 valuation. The valuation report states this decrease is due to the assumption changes made for the June 30, 2003 valuation, which were based on the July 1, 1997 through June 30, 2002 experience study. The largest gains resulting from these assumption changes are those due to the decrease in the wage inflation from 5.50% to 4.50%, and the increase in withdrawal rates. All assumption changes are quantified in the experience study report.

Typically, a Gain/Loss Analysis is provided in an actuarial valuation report, to disclose the affects of experience between actual versus expected occurrences by decrement, as well as other sources of gains and losses. The valuation report for 2003 did not contain a Gain/Loss Analysis, but GRS mentioned they are currently working on including this analysis. We recommend a Gain/Loss Analysis be provided in the June 30, 2004 valuation report, which summarizes the experience of each decrement separately versus the assumptions proposed.

TRF provides an ad-hoc COLA to its members. Funding for these benefits are also on an ad-hoc basis. Any benefit that is not actuarially (advance) funded falls into a certain risk. If TRF would like to provide more security in meeting its future benefit obligations, then we recommend the development of a long-term strategy to pre-fund the COLA.

CONCLUSIONS

This limited scope audit reviewed the data used, the benefits valued, and the actuarial methods and assumptions employed in the June 30, 2003 actuarial valuation. The sample lives provided by the actuary reflect the plan provisions of TRF as stated in the 2003 actuarial valuation. These sample lives also demonstrate that application of the entry age normal funding method and the actuarial assumptions were applied as stated in the valuation. The actuarial assumptions, methods and procedures are reasonable, and reflect the benefit promises and actual experience of the TRF members, and are within the norms of their peer group.

TRF has asked for suggestions to consider in the ongoing valuation of the plan. We suggest:

Data

- Tighten the data reconciliation process: To the extent that records are dropped, or later added, liabilities and contribution rates could similarly fluctuate. Although the current levels are insignificant, we recommend a more comprehensive reconciliation process to avoid changes in these liabilities. We advise Covansys to meet with GRS to better understand the data process.

- Remove old records on the TRF files submitted to GRS: We recommend TRF contact GRS to determine which old records to remove (records for members who no longer are entitled to current or future plan benefits) on the data files, to eliminate unnecessary data work.

- Verify, using current data, the reasonableness of the 2% load for unused sick leave: A 2% load is included in Plan liabilities to fund the unused sick leave used in the calculation of Final Average Pay. We recommend, and agree with the Fund's actuary, that data should be collected to verify the reasonableness of the 2% load used to account for unused sick leave used in the Final Average Pay calculation.

Assumptions

- Marriage Assumption: The valuation assumes all members are married at time of death. This is a conservative assumption (meaning, when the assumption is not met, actuarial gains occur). This assumption could become more material when pricing special death benefits. We recommend a review of this at the next experience study, and setting the assumption based on the Fund's experience.

- Corrections to Provisions and Assumptions in Actuarial Valuation Report: The actuarial valuation report should be corrected for the following provisions and assumptions:
    - Death before retirement benefits are for "in-service" (active) members only;
    - Male withdrawal rates should include the 80% reduction;
    - Spouse age assumption of males are three years older than females;
    - Joint and Survivor factors use the unisex blend of the valuation assumptions, and the spouse is the same age as the member; and
    - The "Other" category under Miscellaneous and Technical Assumptions should be stated as only the withdrawal decrement operates during the first 10 years of service.

Methods – GASB

- Amortization Period: To follow the requirements of GASB, the amortization period should not exceed 30 years. We recommend changing the amortization period to a 30-year open period. The current amortization period is 36 years. GASB has recommended the period not exceed 30 years for valuations after June 15, 2006 (GASB allows either open or closed amortization). One reason the 30 years is used is to promote intergenerational equity and to account for plan costs within one generation. When funding results fall outside of the GASB parameters, a separate GASB valuation is required, with new results shown on the 30-year basis. We recognize that GRS has informed the TRF Board and staff that the amortization period should be lowered to no more than 30 years in conjunction with tightening GASB standards. We also recommend an amortization method using no more than a 30-year amortization period to be GASB compliant.

CAFR (Comprehensive Annual Financial Report) Reporting

- Review Process for GASB compliance for CAFR: For the CAFR to be compliant with Generally Accepted Accounting Principles (GAAP), the actuarial valuation results must be GASB compliant. GASB establishes certain requirements, including the amortization period for the Unfunded Accrued Liability (UAL). For plans who use methods or assumptions that do not meet the GASB proscribed assumptions, a valuation must be re-run showing costs on a GASB compliant basis. Those "GASB" costs are then shown in the CAFR. As noted above, the current amortization method will not be GASB compliant beginning with the June 30, 2006 actuarial valuation.

Report

- Add gain/loss analysis by source to actuarial valuation report: We recommend an Analysis of Gain/Loss by source be provided in the June 30, 2004 valuation report, which summarizes the experience of each decrement separately versus the assumptions proposed, as well as other sources of gains and losses.

Funding

- Ad-hoc COLA review: If TRF would like to provide more security in meeting its future benefit obligations, then we recommend the development of a long-term strategy to pre-fund the COLA.

- Tighten data reconciliation process. Advise Covansys to meet with GRS to better understand the data processes.
- Remove old data records on TRF files, submitted to GRS. TRF will contact GRS to determine which records are not used in the valuation calculations, and will cleanup these records before sending the data to Covansys to be processed.
- Verify, using current data, the reasonableness of the 2% load for unused sick leave.
- Make modest corrections to provisions and assumptions summarized in the actuarial valuation report.
- Review process for GASB compliance for CAFR (includes amortization period).
- Add gain/loss analysis by source to actuarial valuation report.
- Ad-hoc COLA review.

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